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UNITED STATES DEPARTMENT OF AGRICULTURE

BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE

Project	Date	Author

TITLE

INSECT SURVEY - LAS POSADAS STATE FOREST, DECEMBER 6, 1939

JMM
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by
H. L. McKenzie
Berkeley, California
December 11, 1939

SUBJECT—

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Forest Insect Laboratory
Berkeley, California
December 11, 1939

INSECT SURVEY - LAS POSADAS STATE FOREST, DECEMBER 6, 1939

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INSECT SURVEY - LAS POSADAS STATE FOREST, DECEMBER 6, 1939

During the 1938 winter season bark beetle control was initiated on the Los Posados State Forest by the California State Division of Forestry. Prior to control operations the infested trees were spotted and marked by Assistant Ranger, Francis W. Gowen of the State Division of Forestry, and J. W. Bongberg of the Bureau of Entomology and Plant Quarantine. Thirty-four (34) trees harboring overwintering broods of bark beetles were marked and later treated. An examination made by K. A. Salman of the Bureau on August 30, 1939 indicated that control measures had been efficiently carried out, but that some new infestation had appeared on the area.

On December 6, 1939 a reconnaissance of the 1939 winter pine beetle infestation conditions on this 250 acre unit was made by K. A. Salman and the present author (see accompanying map). The entire area within the State Park and all the surrounding timbered area on private holdings was examined. The infestation was found in the ponderosa pine type along the south and west side and edge of the Park, particularly near the S. R. A. camp, and in the north west corner of the ponderosa pine-douglas fir type existing on the private land. Infestation in ponderosa pine was as follows:

1. Trees possessing overwintering broods of the western pine beetle (49);
2. Trees, top killed by the engraver beetles, (36), and
3. Summer trees abandoned (36).

This reinfestation was a development of the 1939 season which became progressively worse toward fall. Where did the beetles come from to initiated the first 1939 attacks? Obviously from some source not detected and treated during the winter control program. The most probable explanation is that the infested bark in pine wood storage in or near the forest furnished the stock of emerging beetles to start the first generation of 1939. It was noted last winter that the western pine beetle and Ips were breeding in the large wood storage near the administrative site.

Once the 1939 attacks were established conditions during the remainder of the season have been ideal for a rapid build-up of barkbeetle populations. Precipitation has been well below normal causing a lowered tree resistance; this together with an early spring and warm temperatures extending late into fall permitted development of more than the normal number of barkbeetle generations. This culminated in a tendency toward grouping of the attacked pine trees.

Since the Los Posados State Park area and the adjoining timber stands on private holdings include only some 250 acres, and in view of the fact that the bark beetle infestation is confined principally to groups,

it is here recommended that a complete clean-up of this unit be made during the winter 1939 and spring 1940 seasons.

In the case of the 30 top killed trees it is advisable to fell and make a careful examination of the bole of several trees in order to determine if the western pine beetle is feeding on the trunk below. If the western pine beetle is not present in these trees and if the Ips top kill does not extend down to the middle of the tree it is recommended that these be left untreated. Infestations of Ips are commonly sporadic and die out quickly when there is no slash or other conditions to sustain them.

Howard L. McKenzie

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LAS POSADAS STATE FOREST

SCALE: 1 INCH = 1/8 MILE